

APR 17 2006



[10191/3107]

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: : Examiner: Yonel Beaulieu  
Thomas LICH et al. :  
For: SYSTEM FOR TRIGGERING :  
RESTRAINING MEANS :  
Filed: June 20, 2003 : Art Unit: 3661  
Serial No.: 10/600,853 :  
X

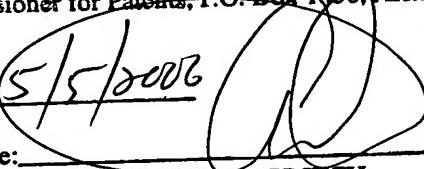
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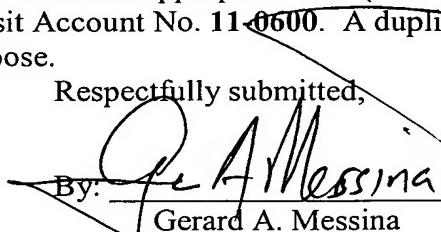
SIR:

Accompanying this Reply Brief Transmittal is a Reply Brief pursuant to 37 C.F.R. § 41.41 for filing in the above-identified patent application, together with two courtesy copies thereof (although not required). The two-month response date is June 13, 2006 (since the Answer is dated April 13, 2006).

While no fee is believed to be due, the Commissioner is authorized to charge, as necessary and/or appropriate, any additional and appropriate fees (including any extension fees) or credit any overpayment to Deposit Account No. 11-0600. A duplicate copy of this transmittal letter is enclosed for that purpose.

Dated: 5/5/2006

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[10191/3107]

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Date: 5/5/2006

Signature:

**REPLY BRIEF PURSUANT TO 37 C.F.R. § 41.41**  
(35 U.S.C.)

SIR:

Appellant submits the present Reply Brief (the two-month response date for which is June 13, 2006 to the Examiner's Answer mailed on April 13, 2006 ("the Answer"). Although not required, two duplicate copies of this Reply Brief are also being submitted herewith as a courtesy to the Patent Office.

For the reasons set forth in the Appeal Brief and those set forth below, it is again respectfully submitted that the final rejections of claims 1 to 19 should be reversed for the reasons set forth below.

## ARGUMENT

### A. Rejections of Claims 1 to 10, 12, and 14 to 19 Under 35 U.S.C. § 102(e)

#### Claims 1, 3, 4, 8, 9, 12, 14 to 16, 18, and 19

Claims 1, 3, 4, 8, 9, 12, 14 to 16, 18, and 19 stand rejected under 35 U.S.C. § 102(e) as anticipated by the “Yokota” reference. It is respectfully submitted that the “Yokota” reference does not anticipate any of claims 1, 3, 4, 8, 9, 12, 14 to 16, 18, and 19 for at least the following reasons.

It is “well settled that the burden of establishing a *prima facie* case of anticipation resides with the [United States] Patent and Trademark Office.” *Ex parte Skinner*, 2 U.S.P.Q.2d 1788, 1788 to 1789 (Bd. Pat. App. & Inter. 1986). To reject a claim under 35 U.S.C. § 102(e), the Office must demonstrate that each and every claim feature is identically described or contained in a single prior art reference. *See Scripps Clinic & Research Foundation v. Genentech, Inc.*, 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991). Furthermore, “[t]he identical invention must be shown in as complete detail as is contained in the . . . claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). That is, the prior art must describe the elements arranged as required by the claims. *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). Still further, not only must each of the claim features be identically described, an anticipatory reference must also enable a person having ordinary skill in the art to practice the claimed subject matter. *See Akzo, N.V. v. U.S.I.T.C.*, 1 U.S.P.Q.2d 1241, 1245 (Fed. Cir. 1986). It is respectfully submitted that the Examiner has not met this standard, for example, as to all of the features of the claims.

As further regards the anticipation rejections, to the extent that the Office Actions to date may be relying on the inherency doctrine, it is respectfully submitted that to rely on inherency, the Office must provide a “basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics *necessarily* flows from the teachings of the applied art.” (See M.P.E.P. § 2112; emphasis in original; and see *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Int'l. 1990)). Thus, the M.P.E.P. and the case law make clear that simply because a certain result or characteristic may occur in the prior art does not establish the inherency of that result or characteristic. Accordingly, it is respectfully submitted that any anticipation rejection premised on the inherency doctrine is not sustainable absent the foregoing conditions.

Importantly, the terms of a claim are not interpreted in a vacuum, even though a pending claim may be “given the broadest reasonable interpretation *consistent with the*

*specification.” M.P.E.P. § 2111. The law supports the eminently reasonable interpretation of the term “impact sensor” described herein, based on the plain meaning of the claim language and the specification (especially as would be understood by a person having ordinary skill in the art) -- which is that an impact sensor is something that must sense an impact (and not something that only determines whether a collision may occur, as in the applied reference). (See *In re Weiss*, 26 U.S.P.Q.2d 1885, 1887 (Fed. Cir. 1993) (when interpreting a claim term or phrase, one must “look to the specification for the meaning ascribed to that term”; Board reversed) (unpublished decision); *In re Okuzawa*, 190 U.S.P.Q. 464, 466 (C.C.P.A. 1976) (“claims are not to be read in a vacuum, and limitations therein are to be interpreted in light of the specification in giving them their broadest reasonable interpretation”; Board reversed; emphasis in original) (citing *In re Royka*, 180 U.S.P.Q. 580, 582-83 (C.C.P.A. 1974) (claims are “not to be read in a vacuum and while it is true that they are to be given the broadest reasonable interpretation during prosecution, their terms still have to be given the meaning called for by the specification of which they form a part”; Board reversed; emphasis in original); and *In re Rohrbacher*, 128 U.S.P.Q. 117, 119 (C.C.P.A. 1960) (an “applicant is his own lexicographer and words used in his claims are to be interpreted in the sense in which they are used in the specification”; Board reversed)). This applies to the term “impact sensor” described herein, based on the plain meaning of the claim language and the specification (especially as would be understood by a person having ordinary skill in the art), as provided for in the context of the claimed subject matter and the specification, as explained herein.*

Claim 1 relates to a system for triggering at least one restraining device and provides for “at least one pedestrian-impact sensor for transmitting a second signal.” Claim 1 further provides for a processor “adapted to trigger the at least one restraining device as a function of a combination of [a first signal of at least one non-pedestrian-impact sensor] and [the] second signal.”

As to the Answer, at page 3, it asserts that the “Yokota” reference discloses non-pedestrian and pedestrian impact sensors, citing the text at lines 41-67 of column 10. In fact, that text plainly states the following:

... FIG. 3 is a block diagram showing the structures of side body airbags 20R and 20L. . . . FIGS. 7a to 7c are schematic representations illustrating how the safety vehicle structure with the above elements works from the collision predicting until operation of the airbag and finally the collision. As is shown in FIG. 3 and FIGS. 7a to 7c, these side body airbags 20R and 20L can be independently operated in response to collision predicting

*sensors 10R and 10L arranged to the right and left of the vehicle 1 as the object detecting means 10.* That is, as shown in FIG. 7b, upon an off-set collision, in which only the collision predicting sensor 10R, one of the collision predicting sensors, predicts the "emergency level", the side member 6R, which is the side to be impacted, will be greatly crushed so that the engine 2A and other equipped parts in the engine room 2 disposed to the right of the vehicle 1 are substantially deformed, whereas a bag 22 arranged in a case 21R of the body airbag 20R in the side member 6R side is inflated before the collision, as shown in FIGS. 7b and 7c.

Thereby, the collision energy can be efficiently absorbed in the collision side. Also, the body airbag 20 shown in FIG. 6a is used together to thereby prevent the deformation from affecting on the cabin 3 side while energy absorbing capacity of the front of the vehicle 1 in a collision is increased to thereby reduce damage to a pedestrian in case of a collision to the pedestrian.

(“Yokota”, col. 10, lines 41-67). The “Yokota” reference could not be more clear that it does not in any way concern impact sensors -- except that the Examiner chooses to “see” them that way without more.

Still further, at page 6 of the Answer, it asserts that “Yokota’s figs. 2-3 support item 10 being an object detecting sensor (means 10) that detects (senses) impact with an object”; citing lines 9-12 of column 10 of the “Yokota” reference. In fact, this text states the following:

The operation of the body airbag 20 will be described with reference to FIGS. 5 and 6. When an obstacle is positioned so as to decrease the relative distance to a vehicle running at the velocity "Vv" exists ahead of the vehicle, if the relative velocity "Vr" between them is more than 20 km/h, for example, while the distance "D" is a collision-unavoidable distance, for example, not more than 2 m (about 20 ms before the collision is assumed), the ECU 11 outputs an operational signal to deploy the body airbag 20 to an inflator as the gas generating means of the body airbag 20, on basis of an information signal obtained from a collision predicting sensor as the object detecting means 10.

(“Yokota”, col. 10, lines 1-12). Here again, the “Yokota” reference makes plain that it does not in any way concern impact sensors -- except that the Examiner chooses to “see” them that way without more.

Incredibly, at page 6 of the Answer, it further asserts that “means 10” is a sensor that detects (senses) an impact with an object, further citing column 8, line 59 to column 9, line 3. In fact, this text only states the following:

The *degree of collision danger* is determined based on the distance information obtained from the *object detecting means* 10 in the ECU 11 *functioning as the collision danger level determining means* 12. In order to reduce collision damage, for example, when an “emergency level” is determined from the collision predicting information, it is important that the injury generated in a collision be minimized. As shown in FIG. 1, when a relative speed between the vehicle 1 and an object to be impacted 8 (depending on running conditions, the object can be either a vehicle running in the opposite direction, a following vehicle, or a stationary object) is determined. When the value reaches more than a predetermined value, this means that both will probably collide with each other without avoiding the collision. *If the collision scale can be predicted before the collision* so as to output a signal for securely operating the safety vehicle structure and the occupant restraining and protecting means in response to these conditions, the occupant “P” can be securely restrained and protected by such a structure and by means which are driven with a small driving force, not with a high-output driving device, in the collision. Large energy absorbing capacity of the vehicle 1 can also be achieved. 10.

(“Yokota”, col. 8, line 59 to col. 9, line 13). Here again, the “Yokota” reference is fundamentally clear that it does not in any way concern impact sensors -- except that the Examiner chooses to “see” them that way without more.

**Plainly, nothing in the text cited by the Examiner in the “Yokota” reference the sensors are “*collision predicting*” sensors which are the “*object detecting means*”. In contrast, for example, the present application makes plain that the impact sensors of the measure the impact (for example, through *deceleration or deformation* sensors, which measure information associated with an impact).**

As previously explained, the Final Office Action asserts that the text at column 10, lines 41 to 67 of the “Yokota” reference discloses a pedestrian-impact sensor. The referenced section *does not* disclose an impact sensor. Instead, the referenced section refers to collision *predicting* sensors that determine a probability of a future collision that may occur. The determination is not based on--and the sensors do not sense--a contact, for example, between a vehicle and an object. The non-contact sensors *do not sense an impact* of

any kind. Therefore, they are not impact-sensors. In particular, they are not pedestrian-impact sensors. Indeed, any review of the “Yokota” reference makes plain that it does not identically disclose (or even suggest) a pedestrian-impact sensor for transmitting a signal as a function of which a processor is adapted to trigger a restraining device, as provided for in the context of the claimed subject matter.

Thus, the “Yokota” reference does not identically disclose (or even suggest) all of the features of claim 1, so that claim 1 is allowable.

Claims 3, 4, 8, 9, 12, 14 to 16, 18, and 19 depend from claim 1 and are therefore allowable for the same reasons as claim 1.

In view of all of the foregoing, reversal of these rejections is respectfully requested.

### **Claim 2**

Claim 2 stands rejected under 35 U.S.C. § 102(e) as anticipated by the “Yokota” reference. It is respectfully submitted that the “Yokota” reference does not anticipate claim 2 for at least the following reasons.

As an initial matter, claim 2 depends from claim 1 and therefore includes all of the features of claim 1. It is therefore respectfully submitted that the “Yokota” reference does not anticipate this dependent claim for at least the same reasons as those of claim 1.

Furthermore, claim 2 provides that “the processor determines a crash type and a crash severity from the combination.” The Final Office Action refers to figs. 4 and 10a-10c as assertedly disclosing these features. However, the referenced figures refer to a degree of danger that a collision will occur. The referenced figures do not identically disclose (or even suggest) a crash severity. In particular, the referenced figures do not disclose (or even suggest) a determination of a crash severity from signals of a pedestrian-impact sensor. For this additional reason, the “Yokota” reference does not identically disclose (or even suggest) all of the features of claim 2, and therefore does not anticipate claim 3, which is therefore allowable for these further reasons.

In view of all of the foregoing, reversal of this rejection is respectfully requested for these further reasons.

### **Claim 5**

Claim 5 stands rejected under 35 U.S.C. § 102(e) as anticipated by the “Yokota” reference. It is respectfully submitted that the “Yokota” reference does not anticipate claim 5 for at least the following reasons.

As an initial matter, claim 5 depends from claim 1 and therefore includes all of the features of claim 1. It is therefore respectfully submitted that the “Yokota” reference does not anticipate this dependent claim for at least the same reasons as those of claim 1.

Furthermore, claim 5 provides that “the at least one pedestrian-impact sensor is situated in a rear bumper of a vehicle.” The Final Office Action refers to column 1, lines 36 to 45 as assertedly disclosing these features. However, the referenced section refers to absorption--and not sensing--of an impact. It does not even refer to a pedestrian-impact sensor. For this additional reason, the “Yokota” reference does not identically disclose (or even suggest) all of the features of claim 5, and therefore does not anticipate claim 5, which is therefore allowable for these further reasons.

In view of all of the foregoing, reversal of this rejection is respectfully requested.

#### **Claim 6**

Claim 6 stands rejected under 35 U.S.C. § 102(e) as anticipated by the “Yokota” reference. It is respectfully submitted that the “Yokota” reference does not anticipate claim 6 for at least the following reasons.

As an initial matter, claim 6 depends from claim 1 and therefore includes all of the features of claim 1. It is therefore respectfully submitted that the “Yokota” reference does not anticipate this dependent claim for at least the same reasons as those of claim 1.

Furthermore, claim 6 provides that “the at least one pedestrian-impact sensor is configured as a side-impact sensor.” As an initial matter, the Final Office Action only refers to an asserted “peripheral side-impact/non-pedestrian sensor,” and does not refer to any pedestrian-impact sensor. Indeed, any review of the “Yokota” reference makes plain that it does not identically disclose (or even suggest) a pedestrian-impact sensor configured as a side-impact sensor. Further, the Final Office Action refers to fig. 3 and column 10, line 63 as assertedly disclosing a sensor configured as a side-impact sensor. The referenced section refers to an air bag 20 at a portion of a vehicle that is in front of a cabin 3 for preventing deformation from affecting the cabin 3. The referenced section does not identically disclose (or even suggest) a side-impact sensor. For this additional reason, the “Yokota” reference does not identically disclose (or even suggest) all of the features of claim 6, and therefore does not anticipate claim 6, which is therefore allowable for these further reasons.

In view of all of the foregoing, reversal of this rejection is respectfully requested.

**Claim 7**

Claim 7 stands rejected under 35 U.S.C. § 102(e) as anticipated by the “Yokota” reference. It is respectfully submitted that the “Yokota” reference does not anticipate claim 7 for at least the following reasons.

As an initial matter, claim 7 depends from claim 1 and therefore includes all of the features of claim 1. It is therefore respectfully submitted that the “Yokota” reference does not anticipate this dependent claim for at least the same reasons as those of claim 1.

Furthermore, claim 7 provides that “the at least one non-pedestrian-impact sensor is embodied in a control device.” While the Final Office Action asserts that the “Yokota” reference anticipates claim 7, the Final Office Action does not address this feature. Indeed, it is respectfully submitted that the “Yokota” reference does not identically disclose (or even suggest) this feature. For this additional reason, the “Yokota” reference does not identically disclose (or even suggest) all of the features of claim 7, and therefore does not anticipate claim 7, which is therefore allowable for these further reasons.

In view of all of the foregoing, reversal of this rejection is respectfully requested.

**Claim 10**

Claim 10 stands rejected under 35 U.S.C. § 102(e) as anticipated by the “Yokota” reference. It is respectfully submitted that the “Yokota” reference does not anticipate claim 10 for at least the following reasons.

As an initial matter, claim 10 ultimately depends from claim 1 and therefore includes all of the features of claim 1. It is therefore respectfully submitted that the “Yokota” reference does not anticipate this dependent claim for at least the same reasons as those of claim 1.

Furthermore, claim 10 provides that a deformation sensor includes “one of a piezo sensor, an optical sensor, a temperature sensor, and a pressure sensor.” The Final Office Action refers to column 7, lines 42 to 50 as assertedly disclosing this feature. However, the referenced section refers to a sensor used for predicting a possible future collision. It does not refer to a deformation sensor. Indeed, it is respectfully submitted that the “Yokota” reference does not identically disclose (or even suggest) this feature. For this additional reason, the “Yokota” reference does not identically disclose (or even suggest) all

of the features of claim 10, and therefore does not anticipate claim 10, which is therefore allowable for these further reasons.

In view of all of the foregoing, reversal of this rejection is respectfully requested.

**Claim 17**

Claim 17 stands rejected under 35 U.S.C. § 102(e) as anticipated by the “Yokota” reference. It is respectfully submitted that the “Yokota” reference does not anticipate claim 17 for at least the following reasons.

As an initial matter, claim 17 depends from claim 1 and therefore includes all of the features of claim 1. It is therefore respectfully submitted that the “Yokota” reference does not anticipate this dependent claim for at least the same reasons as those of claim 1.

Furthermore, claim 17 provides that “the at least one pedestrian-impact sensor extends across an entire side of the vehicle.” While the Final Office Action asserts that the “Yokota” reference anticipates claim 17, the Final Office Action does not address this feature. Indeed, it is respectfully submitted that the “Yokota” reference does not identically disclose (or even suggest) this feature. For this additional reason, the “Yokota” reference does not identically disclose (or even suggest) all of the features of claim 17, and therefore does not anticipate claim 17, which is therefore allowable for these further reasons.

In view of all of the foregoing, reversal of this rejection is respectfully requested.

**B. Rejection of Claim 11 Under 35 U.S.C. § 103(a)**

Claim 11 stands rejected under 35 U.S.C. § 103(a) as unpatentable over the “Yokota” reference in view of the “Mattes” reference. It is respectfully submitted that the combination of the “Yokota” and “Mattes” references does not render unpatentable claim 11 for at least the following reasons.

Claim 11 ultimately depends from claim 1 and therefore includes all of the features of claim 1. Since the “Mattes” reference does not cure the critical deficiencies as explained above with respect to the “Yokota” reference, it is respectfully submitted that the combination of the “Yokota” and “Mattes” references does not render unpatentable claim 11 for essentially the same reasons as those of claim 11. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988) (any dependent claim that depends from a non-obvious independent claim is non-obvious).

As further regards the obviousness rejection, to reject a claim under 35 U.S.C. § 103(a), the Office bears the initial burden of presenting a *prima facie* case of obviousness. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish *prima facie* obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. *In re Fine, supra*. This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Second, there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim features. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

Claim 11 provides that “the acceleration sensor is one of a micromechanical sensor and a switch.” The Final Office Action admits that the “Yokota” reference does not disclose this feature, and instead refers to the “Mattes” reference, at column 1, lines 24 to 37, as assertedly disclosing this feature. The referenced section states that “in addition to acceleration sensors, safety switches (safing or arming sensors) are used” (emphasis added). The referenced section does not disclose or suggest an acceleration sensor that *is* a micromechanical sensor or a switch, as provided for in the context of the claimed subject matter.

Since the combination of the “Yokota” and “Mattes” references does not disclose or suggest all of the features of claim 11, as explained above, it is respectfully submitted that the combination of the “Yokota” and “Mattes” references does not render unpatentable claim 11, which is therefore allowable.

In view of all of the foregoing, reversal of this rejection is respectfully requested.

#### C. Rejection of Claim 13 Under 35 U.S.C. § 103(a)

Claim 13 stands rejected under 35 U.S.C. § 103(a) as unpatentable over the “Yokota” reference. It is respectfully submitted that the “Yokota” reference does not render unpatentable claim 13 for at least the following reasons.

Claim 13 depends from claim 6 and therefore includes all of the features of claim 6. It is therefore respectfully submitted that the “Yokota” reference does not render unpatentable claim 13 for essentially the same reasons as those of claim 6. *In re Fine, supra*.

In view of the foregoing, reversal of this rejection is respectfully requested.

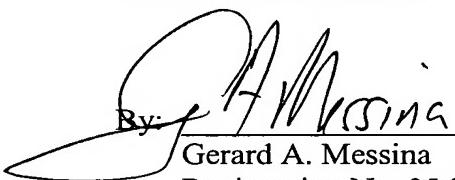
Accordingly, claims 1 to 19 are allowable.

**CONCLUSION**

Accordingly, reversal of the rejections of claims 1 to 19 is respectfully requested. It is also respectfully requested that the present case be allowed, so that the case may issue.

Dated: 5/5/2006

Respectfully submitted,

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